

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019667**Date Inspected:** 12-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Zhu Zhong Hai.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

NDT

BAY 11:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower lift 6. The weld designations reviewed are as follows.

ESD1-FGSA6-2-25A, 26A

WSD1-FGSA6-1-25A, 26A

ESD1-FGSA6-2-5, 6, 7, 8

WSD1-FGSA6-1-5, 6, 7, 8

ESD1-FGSA6-2-21, 23

WSD1-FGSA6-1-22, 24

NDT Notification No-08145

BAY 11:

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This QA Inspector performed randomly Visual Inspection of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower lift 5. The weld designations reviewed are as follows.

Façade connection Plate (Reference IR 1793)

NDT Notification No-08151

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK004ASD1-032-001, 002, 003, 004

NDT Notification No-08149

This QA Inspector observed the following work in progress:

BAY 10:

OBG Bike path, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869 Perform Flux Core Arc Welding (FCAW) on OBG Bike path Stringer plate. Joint identified as BK009A3-001-002. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 040533 Perform Flux Core Arc Welding (FCAW) on OBG Bike path Stringer plate. Joint identified as BK009A3-001-017, 018, 019. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220, Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler rail. Joint identified as 26TR1-001, 002. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2.

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler rail. Joint identified as 36TR1-004, 005. ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2.

BAY 11: SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, 040614, Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 6, C/D Corner joint from Outside. Joint identified as WSD1-TL6-4C/D-001. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's

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calibrated instrument appeared to be in general compliance with WPS-B-T-2312-Tc-P5. For more information see below attached picture number 1.

### Repair Welding FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 205649, Perform Flux Core Arc Welding (FCAW) on Tower lift 5 Plate. Plate identified as PL-4 weld build up 3~5mm. ZPMC CWI Identified as Yu Dong Ping with temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-2G (2F) Repair. For more information see below attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William
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QA Reviewer
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